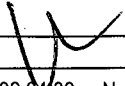
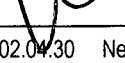


Date: Wednesday, 28/03/2007 10:17:22 AM
 User: Linda Lacelle

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services
 Job Number : 31465
 Estimate Number : 11470
 P.O. Number : N/A
 This Issue : 28/03/2007 S.O. No. : N/A
 Prsht Rev. : NC
 First Issue : N/A Type : SMALL /MED FAB
 Previous Run : 31465
 Drawing Name : DOUBLER
 Part Number : D314099
 Drawing Number : D3140 REV F
 Project Number : N/A
 Drawing Revision : F
 Material : N/A
 Due Date : 30/04/2007 Qty: 4 Um: Each
 Written By : 
 Checked & Approved By : 
 Comment : Est. A02.04.30 New Issue NG
 Est. Rev B New dwg rev. ecn781 06.04.18 EC
 Est. rev.C added scuffing NCR 061 EC
 Est Rev:D As per ECN #829 -06-11-20 JLM
 Est Rev:E Now On Waterjet 07-03-28 JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 M2024T3S032 2024-T3 .032 sheet



Comment: Qty.: 0.1422 sf(s)/Unit Total : 0.5687 sf(s)

2024-T3 .032 sheet

Matl: 2024-T3 (QQ-A-250/4) .032" thick

(M2024T3S.032)

Batch M102942

SAD 07/06/13

2.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET

1-Cut as per Dwg D3140

Dwg Rev: F

Prog Rev: F

2-Deburr if necessary

SAD 07/06/13

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SAD 07/06/13

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

En 07/06/13

Date: Wednesday, 28/03/2007 10:17:22 AM
User: Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER

Job Number: 31465

Part Number: D314099

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Scuff surfaces with 80grit sandpaper per QSI 006

2-Deburr.

No sharp edges

x4

ml 07/07/24

6.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

FL 07/07/26 (4)

7.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

PC 7/7/26 (4)

8.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

stry PC 7/7/26 (4)

9.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

PC 07/07/26 (4)

Job Completion



u 07.07.25

Date: Monday, 3/26/2007 3:18:54 PM
User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: DOUBLER
Job Number	: 31465		
Estimate Number	: 11470		
P.O. Number	:	Part Number	: D314099
This Issue	: 3/26/2007 S.O. No. :	Drawing Number	: D3140 REV F
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : MACHINED PARTS	Drawing Revision	: F
Previous Run	: 26722	Material	:
Written By	:	Due Date	: 4/30/2007 Qty: 4 Um: Each
Checked & Approved By	: <u>9/07.03.27</u>		
Comment	: Est. A 02.04.30 New Issue NG Est. Rev B New dwg rev. ecn781 06.04.18 EC Est. rev.C added scuffing NCR 061 EC Est Rev:D As per ECN #829 06-11-20 JLM		

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description:

1.0

M2024T3S032

2024-T3 .032 sheet



Comment: Qty.: 0.1422 sf(s)/Unit Total: 0.5687 sf(s)
2024-T3 .032 sheet
Matl: 2024-T3 (QQ-A-250/4) .032" thick
(M2024T3S.032) Batch _____

2.0

SHEAR

SHEAR



Comment: SHEAR
Cut blanks
Blank size: 6.00" x 43.00" x .032" thick

3.0

HAAS1

HAAS CNC VERTICAL MACHINING #1



Comment: HAAS CNC VERTICAL MACHINING #1
Machine as per Folio FA226
Stack of 15
Deburr break all unmarked sharp edges .005 to 0.010

4.0

QC2

INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 3/26/2007 3:18:54 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: DOUBLER

Job Number: 31465

Part Number: D314099

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

QC8

SECOND CHECK



Comment: SECOND CHECK

6.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

1-Scuff surfaces with 80grit sandpaper per QSI 006

2-Deburr.

No sharp edges

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

8.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

9.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: _____

10.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3140	REV. F SHEET 1 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS
A	02.04.18	NEW ISSUE	
B	03.01.23	REMOVE -65/-81/-83; ADD -301/-303	
C	04.11.08	CHANGE DELASTEK SPEC. TEC-77; ADD PART MARKING; ADD NOTES 11, 12, 13; CHANGE ANGLE -95/-97/-98 TO 106°	
D	05.11.23	ADD -103/-104/-105/-106; REMOVE -67	
E	06.06.09	1.75 WAS 1.88, 4.75 WAS 4.13 ON -08/-07, 1.00 WAS 1.20 ON -09/-10	
F	06.10.06	ADD NOTE 14; CORRECT PART TITLE, NOW D3140-09/-92/-104 SHOWN D3140-10/-91/-103 OPPOSITE	

RELEASED

06.11.13

QTY -05	QTY -06	QTY -07	QTY -08	QTY -09	QTY -10	PART NUMBER	DESCRIPTION
X						D3140-05	DOOR
	X					D3140-06	DOOR
		X				D3140-07	DOOR
			X			D3140-08	DOOR
		1		X		D3140-09	DOUBLER ASSEMBLY
			1		X	D3140-10	DOUBLER ASSEMBLY
3	3					D3140-57	PAD
1	1					D3140-59	PAD
2	2					D3140-61	PAD
2	2					D3140-63	PAD
		1	1			D3140-69	PAD
		1	1			D3140-71	PAD
		1	1			D3140-73	PAD
		1	1			D3140-75	PAD
		1	1			D3140-77	PAD
		1	1			D3140-79	PAD
				1	1	D3140-85	ANGLE
1	1					D3140-87	DOUBLER
				1	1	D3140-89	DOUBLER
		1				D3140-91	DOUBLER
			1			D3140-92	DOUBLER
3	3					D3140-95	DOUBLER
1						D3140-97	DOUBLER
	1					D3140-98	DOUBLER
		1	1			D3140-99	DOUBLER
		2	2			D3140-101	DOUBLER
		1				D3140-103	DOUBLER
			1			D3140-104	DOUBLER
		1				D3140-105	DOUBLER
			1			D3140-106	DOUBLER
1	1					D3140-241	DOUBLER
1		1				D3140-301	DOUBLER
	1		1			D3140-303	DOUBLER
				5	5	MS20426AD3-4	RIVET

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CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D3140	REV. F SHEET 2 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS

1

COMPOSITE LAYUP & BONDING I.A.W. DELASTEK PROCESS SPEC. TEC-77
MATERIAL STORAGE & HANDLING TO BE I.A.W. DART QSI 006
MAIN LAYUP USES FIBERCOTE E-761/7781 EPOXY FIBERGLASS.
FILL WITH EPOCAST 87269 OR MAGNOBOND 77 A & B AND MA560 FOAM/ NB-51/30 FOAM

2

FINISH: DUPONT HIGHBUILD GREY PRIMER 1144-S

3

MAKE PARTS IN ACCORDANCE WITH THE FOLLOWING TOOLS/MOLDS:

PART	TOOL
D3140-05	B30-23000-01T
D3140-06	B30-23000-02T
D3140-07	B30-23000-03T
D3140-08	B30-23000-04T
D3140-57	B30-23000-57T
D3140-61	B30-23000-61T
D3140-63	B30-23000-63T
D3140-69	B30-23000-69T
D3140-71	B30-23000-71T
D3140-73	B30-23000-73T
D3140-75	B30-23000-75T
D3140-77	B30-23000-77T
D3140-79	B30-23000-79T
D3140-89	D3140-89T1
D3140-301	D3140-301T1
D3140-303	D3140-303T1

RELEASED

06.11.13

4

MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK (M2024T3S.032)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

5

MATERIAL: 2024-T3 (QQ-A-250/4) 0.020 THICK (M2024T3S.020)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

6

MATERIAL: 5052-H32/H34 (QQ-A-250/8) 0.040 THICK (M5052H32S.040)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

7

MATERIAL: POLIMEX TR75 1" THICK 4.5 LB KLEGECELL

8

ALL DIMENSIONS IN INCHES

9

TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

10

MATERIAL: 6061-T6 (QQ-A-250/11) 0.063 THICK (M6061-T6S.063)
FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

11

DOUBLER TO SIT ON TOP OF FOAM AT THIS LOCATION

12

DOUBLER TO BE RECESSED FLUSH INTO FOAM AT THIS LOCATION

13

RUBBER STAMP WITH DART P/N D3140-05/-06/-07/-08 USING MIL-STD-130

14

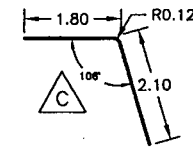
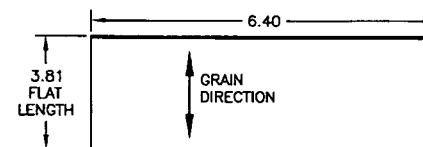
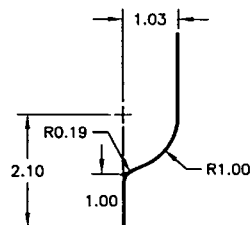
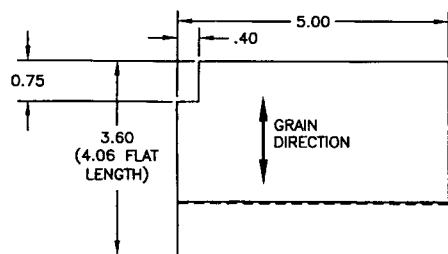
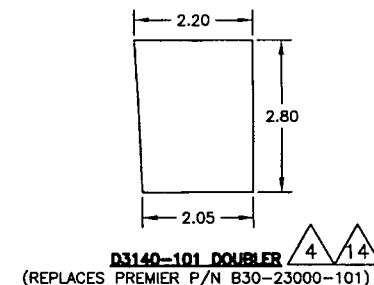
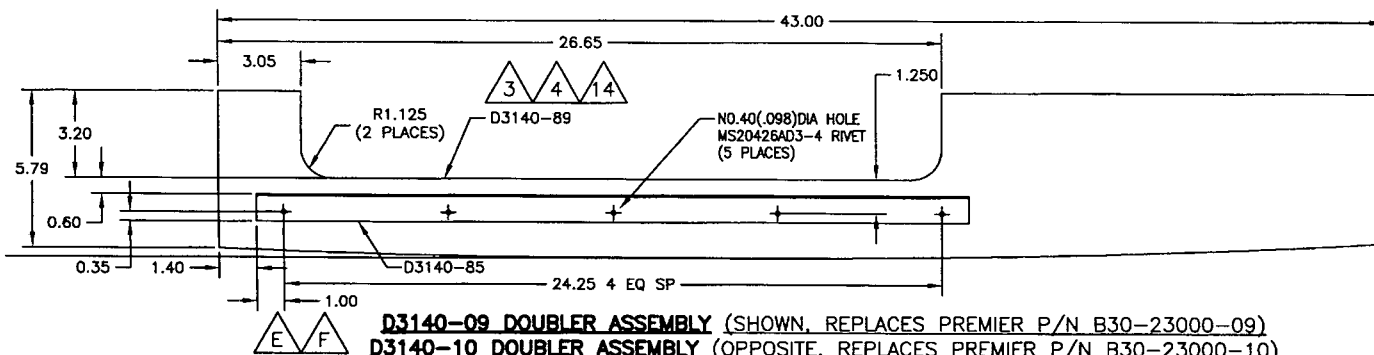
PARTS MUST BE SCUFFED WITH 80 GRIT SANDPAPER PRIOR TO ACID ETCH AND
ALODINE PER DART QSI 005 4.1

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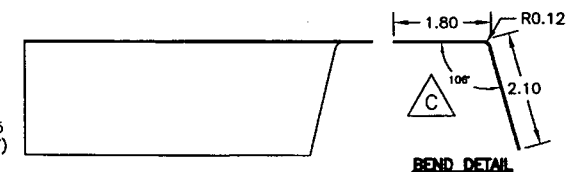
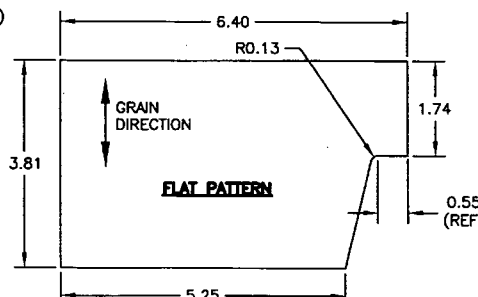
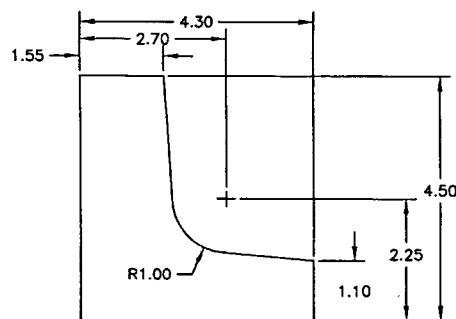
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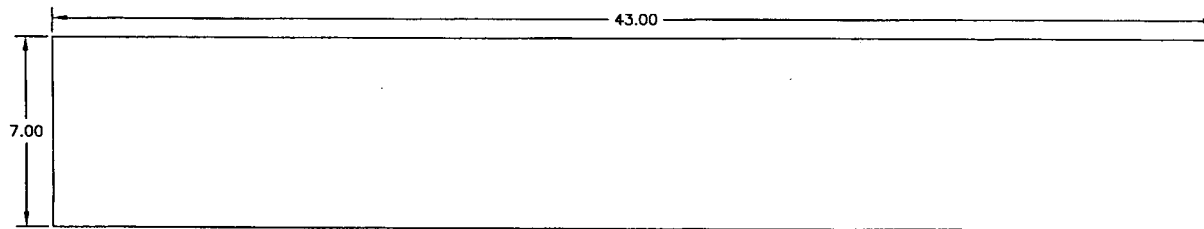
06.11.13



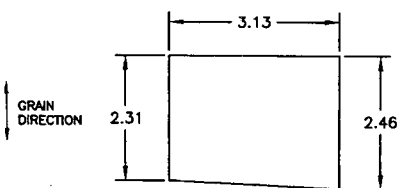
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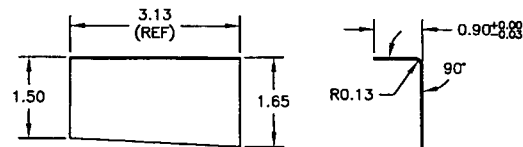
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		DATE	06.10.06	DRAWING NO.		D3140	
				TITLE		DOOR	



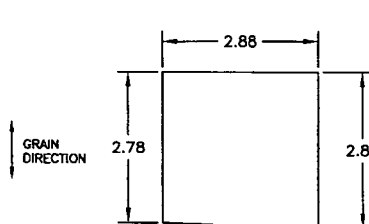
D3140-87 DOUBLER
(REPLACES PREMIER P/N B30-23000-87)



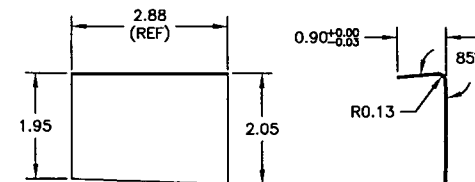
D3140-105F FLAT PATTERN
(USED TO MAKE D3140-105/-106 BRACKETS)



D3140-105 DOUBLER
(REF)
D3140-106 OPPOSITE

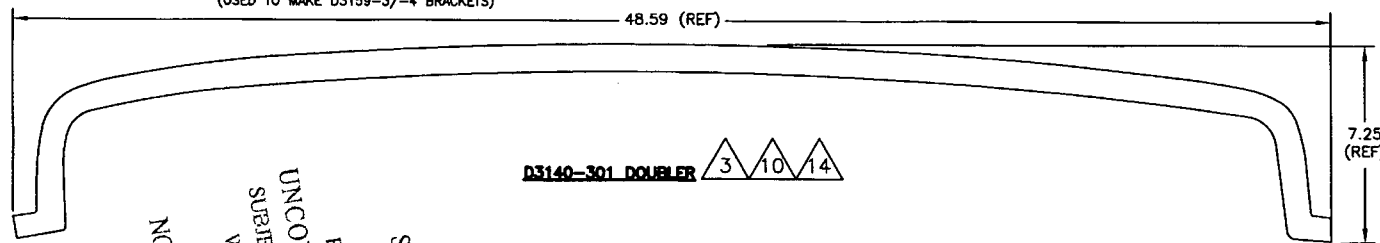


D3140-103F FLAT PATTERN
(USED TO MAKE D3140-103/-104 BRACKETS)

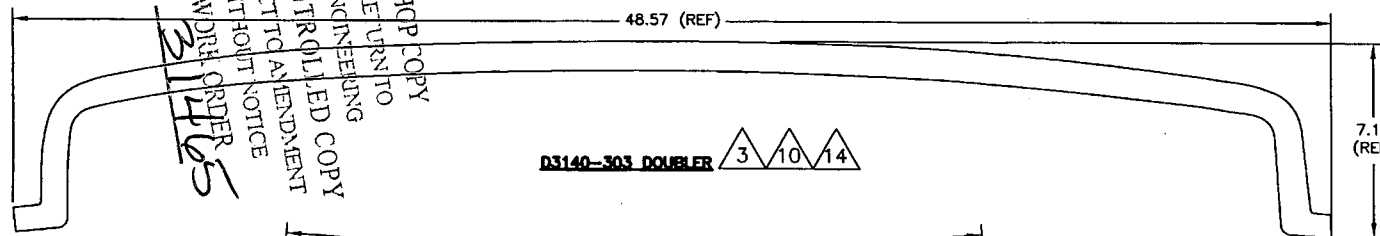


D3140-104 DOUBLER
(REF)
D3140-103 OPPOSITE

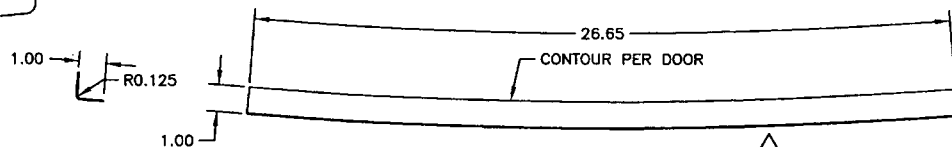
D3159-3F FLAT PATTERN
(USED TO MAKE D3159-3/-4 BRACKETS)



D3140-301 DOUBLER



D3140-303 DOUBLER



D3140-85 ANGLE
FLAT PATTERN: 26.65" x 1.90"
(REPLACES PREMIER P/N B30-23000-85)

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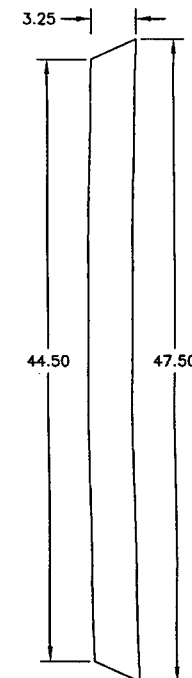
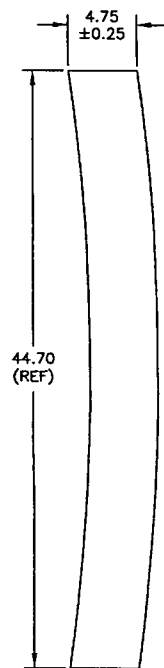
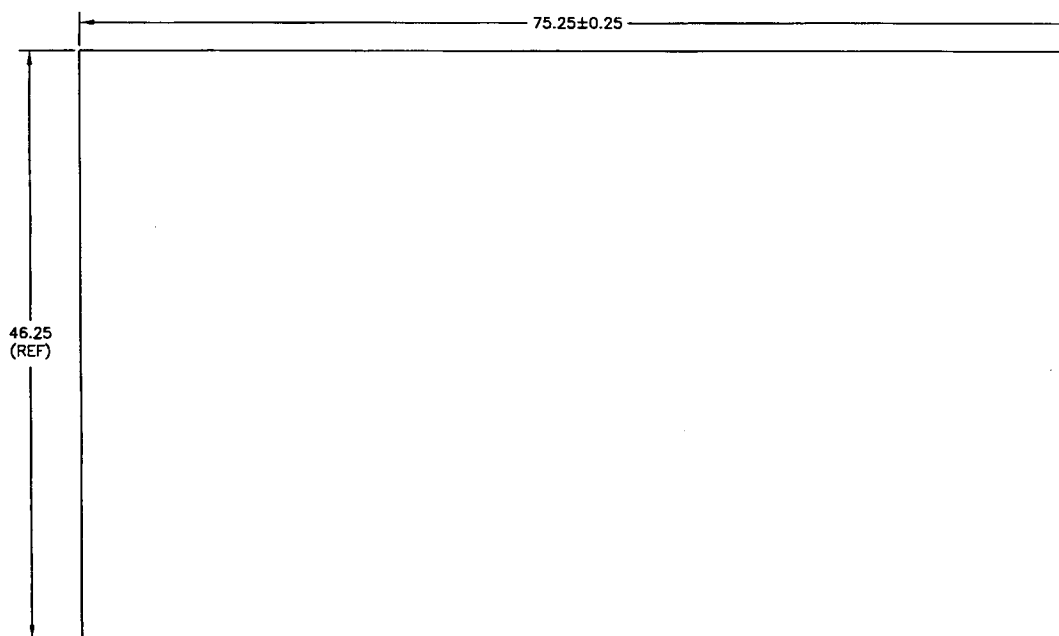
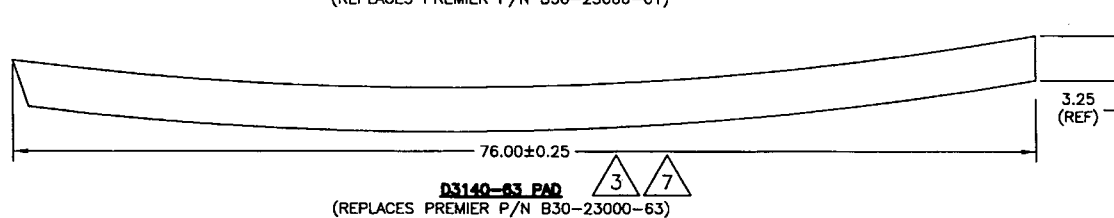
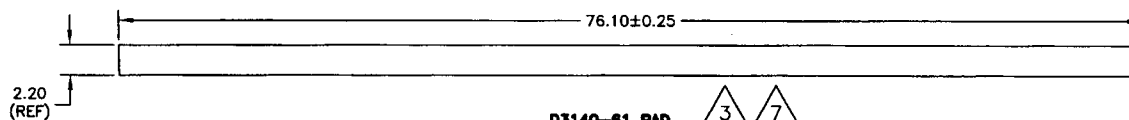
2011.13

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CHECKED 	APPROVED 	DRAWING NO. D3140	SHEET 6 OF 7
DATE 06.10.06	TITLE DOOR	SCALE NTS	



D3140-241 DOUBLER 5 14
(REPLACES PREMIER P/N B30-23000-241)

RELEASED

06.11.13

R1.00
(2 PLACES, REF)

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CHECKED <i>[Signature]</i>	APPROVED	DRAWING NO. D3140	REV. F SHEET 7 OF 7
DATE 06.10.06		TITLE DOOR	SCALE NTS

DART AEROSPACE LTD		Work Order: 31465
Description: Doubler		Part Number: D314099
Inspection Dwg: D3140 Rev: F		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
A 1.55	+/- 0.030	1.55	✓		Vern	
B 4.30	+/- 0.030	4.30	✓		Vern	
C 1.10	+/- 0.030	1.11	✓		Vern	
D 4.50	+/- 0.030	4.50	✓		Vern	
E 0.032	+/- 0.010	0.033	✓		Vern	
F						
G						
H						
I						
J						
K						
L						
M						
N						
O						
P						
Q						
R						
S						
T						
U						
V						
W						
X						
Y						

Measured by: SAD	Audited by: En	Prototype Approval:	N/A
Date: 07/06/13	Date: 07/06/13	Date:	N/A

Rev	Date	Change	Revised by	Approved
		New Issue	KJ/RF	